

Ten species of the genus *Pleuracanthus*, modified as above, were described by the author from the Coal-measures, principally of Yorkshire. Eight of these were described as new.

2. "On Mammalian Remains and Tree-trunks in Quaternary Sands at Reading." By E. B. Poulton, Esq., F.G.S.

The author described in detail a pit opened on the south slope of the Thames valley on the Redland Estate at Reading, about 36 feet above the river-level. The north face shows gravels and alluvia containing chalk-flints and fossils, fragments of Oolitic limestone and fossils, and scattered materials of the high-level gravel, overlying reconstructed beds (sands and clays) composed chiefly of the débris of the Woolwich and Reading beds, and in part of the basement bed of the London Clay. The author noticed especially the traces of fluvial action displayed in these reconstructed Tertiary materials, and the fossil remains found in the sands and gravels, which included traces of *Elephas primigenius*, *Bos primigenius*, *Equus fossilis*, and ? *Rhinoceros tichorhinus*, besides numerous portions of trunks of trees, in some parts of which traces of coniferous structure had been recognized. The characters presented by this pit were of interest, as adding another to the scattered evidences of the existence in postglacial time in the valley of the Thames of a larger river occupying that valley, and flowing at from 20 to 30 feet higher than the present river.

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#### MISCELLANEOUS.

*The Cave-Bear of California.* By E. D. COPE.

IN exploring a cavern in the Carboniferous Limestone of Shasta County, Cal., James D. Richardson discovered the skull of a bear beneath several inches of cave-earth and stalagmite. The specimen is in a good state of preservation, and demonstrates that the cave-bear of that region was a species distinct alike from the cave-bear of the East (*Ursus pristinus*) and from any of the existing species. In dimensions the skull equals that of the grizzly bear, but it is very differently proportioned. The muzzle is much shorter and is wide, and descends obliquely downward from the very convex frontal region. It wants the large postorbital processes of the grizzly, but has the tuberosities of the polar bear (*U. maritimus*), which it also resembles in the convexity of the front. Sagittal crest well developed. Three (one median and posterior) incisive foramina; three external infraorbital foramina. The teeth are large; and the series presents the peculiarity of being without diastema. The crowns of the premolars are not preserved; but if there were not three premolars, the second tooth has two well-developed roots. First true molar with but two external and one internal tubercle. The absence of diastema renders it necessary to separate

this bear from the true *Ursi*; and I propose to regard it, provisionally, as a species of *Arctotherium*, Gerv. The canine teeth are large, and compressed at the base. Length of cranium, along base from below apex of union to premaxillary border, 0·387 metre, length to posterior nares ·202, elevation of forehead vertically above the posterior extremity of the last molar ·141, width between inner border of posterior molars ·076. The species may be called *Arctotherium sinum*.—*American Naturalist*, December 1879.

*On the Systematic Position of some little-known Asiatic Mantodea, with Descriptions of two new Species belonging to the Genus Hestias.* (Abstract.) By J. WOOD-MASON.

#### GENUS HESTIAS, SAUSSURE.

The genus *Hestias*, proposed in 1871 by De Saussure for the reception of a remarkable insect from Sylhet, is referred to the subfamily Harpagidæ, wherein it must take its place next after, or in the immediate neighbourhood of, *Acromantis* and its allies, from which it is readily distinguishable by the form of the prothorax, by the structure and by the peculiar style of colouring of the insides of the fore legs, &c. The author recognizes five species (of which two are now for the first time described), viz. :—

##### 1. *Hestias Brunneriana*, Saussure.

*Hestias Brunneriana*, Saussure, Mél. Orthopt. i. 1871, 3<sup>me</sup> fasc. p. 454, ♀; Wood-Mason, Proc. As. Soc. Beng. August 1876, ♂ ♀.

*Hab.* Sylhet and Calcutta in Northern India, and Mysore in Southern India.

##### 2. *Hestias Rogenhoferi*.

*Pachymantis Rogenhoferi*, Saussure, Mél. Orthopt. ii. 1872, p. 77, pl. ix. fig. 27, ♀.

*Hab.* Moluccas?

##### 3. *Hestias pictipes*, n. sp.

*Male and Female.* Head with a minute horn shaped like that of *H. Brunneriana* ♂. Organs of flight of female not reaching, of male extending beyond, extremity of abdomen. Tegmina of female with the marginal field opaque light yellowish green, the rest delicately hyaline; wings with marginal field subopaque orange-yellow, the venation of the rest of the organ of the same colour narrowly lined with hyaline, and the meshes pale smoky. Fore coxæ red-violet, especially internally, femora inside on the lower half jet-black, with three distinct white spots in a longitudinal row, and with a narrow black stripe extending from the base along fully three fourths of the length of the margin of the foliaceous expansion, the rest of the surface being rich red-violet.

Length of female about 19 millims., of male 17 millims.